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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,746	01/18/2001	Ying Huang	481340010032	7984

7590 09/20/2004

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EXAMINER
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JAIN, RAJ K

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/764,746

Applicant(s)

HUANG ET AL.

Examiner

Raj Jain

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US005615298A ) in view of Gustafsson et al. (US006459914B1).

Regarding claim(s) 1 and 3, Chen discloses a system and method for speech coding experiencing frame erasure--that is, the loss of a group of consecutive bits in the compressed bit-stream which group is ordinarily used to synthesize speech (see abstract and Fig 1 (100)). The system comprises of;

storing successive voice packets of the packetized voice signal within a buffer 110 (see Fig 1 and col 7 lines 33-50; see claims 1 and 6);

detecting packet loss or missing voice packets via the decoder of Fig 1 not receiving a frame for decoding (see Fig 1, cols 1 lines 39-50, col 4 lines 34 -55);

implementing filter with appropriate transfer functions to be used to enhance perceptual quality of a signal (see cols 24-26);

adding white noise as a correction procedure by increasing the power spectral energy and alleviate ill-conditioning (see cols 14-17).

Chen fails to disclose estimating of the power spectrum of one of the store packets.

Gustafsson discloses estimating of power spectrum during speech pauses or breaks in packet transmission (see Figs 1, 2 and col 3 lines 45-65).

Power spectrum estimation allows for noise reduction amongst users by filtering a noisy input signal and outputting a noise reduced output signal and therefore offering a gain of the overall power spectrum and enhancing perceptual quality of the received signal.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a power spectrum estimation processor to reduce output noise and in-turn increase the gain function and thus increasing perceptual quality of the received signal.

Regarding claim(s) 2 and 5, Gustafsson discloses use of Welch's averaged periodogram method for power spectral estimation (see col 6 lines 11-63).

Regarding claim 4, Chen discloses the use of an additional switch, one operable by packet loss detector 110, 130 (Fig 2) and switch connected to the buffer 120 (Fig 1).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Application/Control Number: 09/764,746

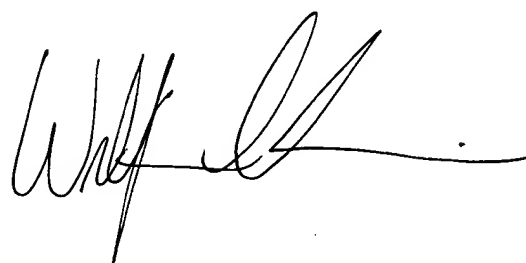
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

RJ

September 17, 2004

A handwritten signature in black ink, appearing to be 'W. J. Wolf', with a long horizontal line extending to the right.